

Application No.: 09/630,413

Docket No.: 00-VE12.24

REMARKS

Claims 1-19, 21-33, 35-40, 42-44, and 46 are pending and stand finally rejected. Claims 1, 22, 36, and 43 are independent claims.

In the Office Action, claims 36-40 and 42-46 were rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite. Claims 1-3, 7-9, 11-14, 17, and 18 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. 5,343,461 ("Barton") in view of U.S. 5,060,226 ("Gewin"). Claims 15 and 16 were rejected under Section 103 as allegedly unpatentable over Barton and Gewin in view of allegedly admitted prior art. Claims 4, 22-26, 28, 29, 32, and 36 were rejected under Section 103 as allegedly unpatentable over Barton in view of Gewin and U.S. 5,224,149 ("Garcia"). Claims 30, 31, and 37-39 were rejected under Section 103 as allegedly unpatentable over Barton, Gewin and Garcia in view of allegedly admitted prior art and further in view of U.S. 5,521,977 ("Bergstrom"). Claims 5 and 6 were rejected under Section 103 as allegedly unpatentable over Barton, Gewin and Garcia in further view of Bergstrom. Claims 10 and 27 were rejected under Section 103 as allegedly unpatentable over Barton, Gewin and Garcia in further view of U.S. 4,107,469 ("Jenkins"). Claim 43 was rejected under Section 103 as allegedly unpatentable over Barton in view of allegedly admitted prior art and further in view of Gewin and Bergstrom. Claims 19, 21, 33, 35, 40, 42, 44, and 46 were rejected under Section 103 as allegedly unpatentable over Barton, Gewin and Garcia in further view of allegedly admitted prior art.

Claims 36 and 43 are amended herein to overcome the afore-mentioned Section 112 rejections. In view of the following arguments, all pending claims are believed to be in condition for allowance. However, if the Examiner is unpersuaded that all claims are allowable, entry of the foregoing amendments is respectfully requested to put the claims in better condition for appeal.

I. Independent Claims 1, 22, 36, And 43 Are Patentable Over Combinations Including Barton and Gewin.

Each of independent claims 1, 22, 36, and 43 stands rejected over some combination of prior art that includes Barton and Gewin. Regarding each independent claim, the Examiner has acknowledged that Barton, the primary cited reference, fails to disclose "a second selectably-activated loopback circuit . . . and a controller . . . to selectively activate the first and second

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selectably-activated loopback circuits individually and simultaneously.” (See, e.g., Office Action, page 3.) The Examiner contended that Gewin makes up for the acknowledged deficiencies of Barton. However, (1) Gewin does not teach or suggest the afore-quoted claim limitation, (2) nor does Barton or Gewin provide support for any motivation to combine the references. Accordingly, for any of these independent reasons, the Examiner has failed to state a prima facie case of obviousness and Applicants’ independent claims are allowable over the prior art of record.

A. The Combination Of Barton And Gewin Fails To Teach Or Suggest “a second selectably-activated loopback circuit . . . and a controller . . . to selectively activate the first and second selectably-activated loopback circuits individually and simultaneously.”

Gewin clearly fails to teach two loopback circuits that are “selectably-activated individually and simultaneously,” as recited in Applicants’ independent claims. Gewin teaches “a master test unit capable of sending and receiving test data [that is] configured at a selected point within a network in combination with a plurality of remotely addressable field loopback units, also located at selected points within the network.” (Col. 2, lines 41-46.) Thus,

[w]hen a field unit is activated, it assumes the loopback mode wherein all data received is echoed back to the transmitting master unit. This loopback occurs in parallel on both the near and far sides of a given loopback unit; thus it is possible to simultaneously test the line on both sides of a given loopback unit, provided there is present an additional master unit located at the far side of the given loopback unit (Col. 3, lines 8-16).

In short, Gewin requires that both the near and far side loopback circuits are activated together rather than being selectably activated individually and simultaneously. The fact that Gewin tests a line on both sides of a loopback unit in no way teaches or suggests “a controller . . . to selectively activate the first and second selectably-activated loopback circuits individually and simultaneously” as is required by Applicants’ claims.

Moreover, Gewin simply does not disclose any structure that teaches or suggests “selectively activate[ing] . . . selectably-activated loopback circuits. As explained in Applicants’ specification:

“Both local and remote control of the loopback circuits are contemplated within the scope of the present invention. Local control is provided through a push button switch 346, or other multiposition switch, which signals the controller 340 to loop-up or loop-down the appropriate loopback circuitry. In at least one embodiment, a technician at the repeater pushes the button once to loop towards the DSX-1 network; a second push of the button loops towards the local T1 span. In this

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configuration, loopbacks in both directions are simultaneously available to enable testing of network segments from the point of demarcation or CPE as well as from the DSX-1 interface or even the central office (see Fig. 1). A third push of the button loops down both circuits". (Page 17, lines 6-14; Fig. 3.)

Gewin, in contrast, discloses a parallel loopback that plainly occurs automatically "[w]hen a field unit is activated." (See col. 3, lines 8-16.) If anything, Gewin teaches that "selectably-activated loopback circuits" are not desirable or necessary because Gewin teaches the benefit of always using a "parallel loopback," and therefore teaches against the presently claimed invention.

In the Final Office Action, the Examiner claimed to be relying on Barton's alleged teaching "of a controller to activate the first selectably-activated loopback circuit individually." (Final Office Action, page 13.) However, the cited portion of Barton teaches no more than detecting "a loop-up signal or a loop-down signal" and opening or closing a circuit accordingly (col. 18, lines 10-11.) In other words, Barton simply teaches a mechanism for starting and stopping a loopback test. (See col. 17, lines 8-25.) This teaching notwithstanding, nothing in Barton teaches or suggests that a loopback circuit is individually and simultaneously selectively activated, as is required by Applicants' claims. Moreover, the mere fact that a loopback test can be stopped and started does not, by itself, teach or suggest selectively activating first and second loopback circuits. Thus, Barton does not teach or suggest the aforementioned claim limitation any more than does Gewin.

For at least the foregoing reasons, all pending claims are in condition for allowance.

B. Motivation To Combine Barton And Gewin Is Lacking In The Prior Art Of Record.

The Examiner asserted, without any citation to the prior art of record, that it would have been obvious to combine Barton and Gewin "to improve the system loopback capabilities for near and far sides." (Final Office Action, page 4.) Not only does the cited prior art provide no support for this proposition, but the Examiner provided no explanation as to why the alleged need "to improve the system loopback capabilities for near and far sides" would have suggested to one of ordinary skill to create the recited "controller . . . to selectively activate the first and second selectably-activated loopback circuits individually and simultaneously." Indeed, inasmuch as Gewin teaches a parallel loopback, i.e., loopback on both sides of a test unit, it would not seem that Gewin's "system loopback capabilities" need improvement. As noted above, if Gewin contains any

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relevant teaching it is against the recited combination insofar as Gewin teaches that his parallel loopback system is desirable and advantageous.

Accordingly, for at least the foregoing reasons, all pending claims are in condition for allowance.

II. The Combination Of Barton, Gewin, and Garcia Fails To Teach Or Suggest Certain Limitations Of Claims 4 and 22.

Claims 4 and 22 recite “a first selectably-activated loopback circuit which, when activated, loops the first regenerated signal to the second output port,” and “a second selectably-activated loopback circuit which, when activated, loops the second regenerated signal to the first output port.” Admitting that these claim limitations are not disclosed by the combination of Barton and Gewin, the Examiner contended that Garcia compensates for the acknowledged deficiencies of Barton and Gewin.

The Examiner contended that Garcia, “teaches a second signal regenerator coupled between second input and output (regenerator 64 on Fig. 1 and 2, 4:37-49).” (Final Office Action, page 7.) However, the Final Office Action wholly failed to address, and Garcia does not teach or suggest, a second selectably-activated loopback circuit which, when activated, loops the second regenerated signal to the first output port. Garcia teaches no more than a single loopback line 66 that loops a signal received from the central office 12 back to the central office 12. The loopback path includes regenerators 62 and 64 which operate to regenerate the received signal as it looped from the first input 18 to the second output 26. (See FIGs. 1 and 2; col. 4, lns. 50-54.) Garcia includes no teaching of a second regenerated signal being looped to the first output port 20 of repeater 22.

Accordingly, the cited references do not teach the foregoing limitations of dependent claim 4 and independent claim 22. Accordingly, claims 4, 22-33 and 35 are patentable for at least this additional reason.

III. Applicants’ Dependent Claims Are Separately Patentable.

Applicants believe that the Examiner has failed to state a prima facie case of obviousness with respect to all of their dependent claims. Accordingly, Applicants reserve the right to argue, either in an Appeal or in future submissions to the Examiner, that certain of their dependent claims

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are separately patentable over the prior art of record. To take just one example, regarding claim 28, the Examiner stated that the cited references "do not teach a pre-equalized circuit to shape the second regenerated signal before it reaches the second output port." (Final Office Action, page 8.) However, the Examiner cited no prior art, nor any motivation, according to which one of ordinary skill in the art would have made up for the acknowledged deficiencies of the prior art of record. Other examples of dependent claims with respect to which the Examiner has failed to state a prima facie case of obviousness include, without limitation, claims 5-6, 10-11, 15-16, 23-27, 30-31, and 37-39.

CONCLUSION

Reconsideration and allowance are respectfully requested. In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes that no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 07-2347, under Order No. 00-VE12.24, from which the undersigned is authorized to draw. To the extent necessary, a petition for extension of time under 37 C.F.R. §1.136 is hereby made, the fee for which should also be charged to this Deposit Account.

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Respectfully submitted,

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